

REMARKS

The present Amendment is in response to the Office Action dated June 25, 2004 in reference to the above-identified application. The Examiner set a shortened statutory period for reply of three (3) months, making the present Amendment due by September 25, 2004. Filed concurrently herewith is a request for a two-month extension of time so that the present Amendment is due by November 25, 2004.

At the outset, Applicant would like to convey its appreciation for the Examiner's decision to withdraw the supplemental election requirement as set forth in the Office Communication dated September 24, 2003, so as to conduct a consolidated examination of the pending claims in this application. Moreover, Applicant appreciates the indicated conditional allowance of claims 3, 8, 10-14 and 18-32. In reviewing the Office Action, Applicant's attorney appreciates the thoroughness of the Examiner's review and the clarity of the Examiner's remarks.

Turning now to the Office Action, claims 1-34, 69-72 and 74-78 were pending, with claims 75-78 withdrawn from consideration pursuant to 35 C.F.R. 1.142(b). In the Office Action, the Examiner has made various technical objections under 37 C.F.R. § 1.75(c) as well as various rejections under 35 U.S.C. §112, second paragraph. More particularly, the Examiner has rejected claims 13 and 34 under 37 C.F.R. § 1.75(c) as "failing to further limit the subject matter of a previous claim." Claims 34 and 69 to 71 were rejected under 35 U.S.C. § 112, second paragraph "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention."

More substantively, the Examiner has made various prior art rejections of claims under 35 U.S.C. § 102(b). Claims 1, 2, 4-7, 9, 15-17, 33, 34, 69-72 and 74 are rejected as being anticipated by Nicolaou et al., J. Am. Chem. Soc., 119(34), 7974-7991, 1997 (hereinafter referred to as the 1997 Nicolaou reference.). Additionally, claims 33, 34, 69-72, and 74 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nicolaou et al., Angew. Chem. Int. Ed., 37, 2014-2045, 1998 (hereinafter the 1998 Nicolaou reference).

As an initial matter, Applicant notes for the Examiner's attention that various informalities were addressed with respect to the claim language. Particularly, it was noted that the language "selected from the formulas" was not grammatically correct. This language, where appropriate, has been changed to "of the formula". In particular, the Examiner will note amendments to this effect in claims 1 and 69, which are marked pursuant to 37 CFR 1.121.

In an effort to facilitate the understanding of the various claim amendments Applicant has made in formulating the present response, the Examiner will note that the Remarks following have been divided into sections according to the action taken to address the various claim objections and rejections raised in the Office Action. In general, Applicant first addresses those claims the Examiner indicated contain allowable subject matter. Next, Applicant addresses the amendment to claim 1 as well as the various new independent claims that contain the subject matter of claim 1. Finally, Applicant discusses the amendment to independent claim 64 and the

various new claims added to the application that contain the subject matter of claim 64.

Allowable claims 3; 8; and 10-14:

In view of the Examiner's indication that claims 3 and 8 contain allowable subject matter, Applicant has written each claim into independent form as new claims 79 and 80, respectively. As a result, claims 3 and 8 have been cancelled.

Similarly, claim 10 and its dependent claims 11-14 have been cancelled. Claim 10 has been rewritten into independent form a new claim 81. New claims 82-85, which depend from independent claim 81, essentially contain the subject matter of claims 11-14, respectively.

Applicant notes for the Examiner's attention, that prior to their cancellation, claim 13 depended from claim 10 and claim 14 depended from claim 13. These dependencies have now changed. The subject matter of claim 13 now appears as new claim 84 and the subject matter of claim 14 now appears as new claim 85. Both claims 84 and 85 depend from claim 83, which essentially claims the subject matter of cancelled claim 12.

The Examiner objected to claim 13 under 37 C.F.R. 1.75(c) as not being a further limitation of claim 12. Applicant notes that claim 13 would, however, be a further limitation of claim 10. Accordingly, new claim 84 depends directly from new independent claim 81.

Allowable claims 18 and 19; 20 and 21; 22-32

Applicant has rewritten claim 18 into independent form as new claim 86 and claim 87 depending therefrom essentially recites the subject matter of claim 19. Claims 18 and 19 have been cancelled.

Similarly claim 20 has been rewritten into new independent claim 88, and, depending therefrom is new claim 89, which essentially recites the subject matter of claim 21. As a result, claims 20 and 21 have been cancelled.


Claim 22 has been rewritten into independent form as new claim 90. Depending therefrom are new claims 91-100, which essentially recite the subject matter of claims 23-32, respectively. Claims 22-32 have been cancelled.

Amendment to Claims 1 and 2

The Examiner rejected claim 1 as being anticipated by the 1997 Nicolaou reference. The Examiner's rejection appears to only pertain to certain R_x values when Z is defined as the thiazole radical. Claim 1 has been amended to define Z as



thereby removing from the claim the recitation wherein Z is the thiazole radical. In amending claim 1 in this way, claims 15-17 have been cancelled since these claims depend upon defining Z as the thiazole radical. Applicant also notes

for the Examiner's attention that in amending claim 1 to define Z , R_4 no longer appears in the claim. Accordingly, both claim 1 and claim 2 have been amended to so as to no longer define R_4 . Based upon these amendments, Applicant believes that claims 1, 2, 4-7 and 9 are now in condition for allowance.

Cancellation of Claim 34

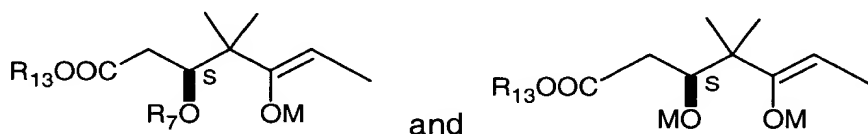
In the Office Action, the Examiner objected to claim 34 under 37 C.F.R. § 1.75(c) as failing to further limit claim 33, from which it depends. The Examiner will note that Applicant has cancelled claim 34.

New Independent claim 101 and claims 102 – 110, which depend therefrom

In rejecting claim 1 as being anticipated by the 1997 Nicolaou reference, the Examiner takes the position that the reference teaches performing an aldol condensation of a first compound with a second compound of formula



wherein R_{13} is H and R_7 is the protecting group TBS. Applicant notes that the 1997 Nicolaou reference does not appear anticipate the aldol condensation of a first compound with a second compound selected from the formulas



wherein R_{13} is H or a metal salt; and wherein M is an alkali metal salt or transition metal salt; R_7 is selected from H and a protecting group. Accordingly, claim 1 has essentially been rewritten as new independent claim 101 wherein the second compound is selected from the two formulas shown above, and their stereoisomers. The Examiner will further note that new claim 101 defines Z as the thiazole radical. Claims 102-110, which depend therefrom, essentially recite the subject matter of claims 2, 4-6, 9, 15-17, and 33, respectively, which Applicant also believes are in condition for allowance.

New Independent claim 111 and claims 112-120, which depend therefrom

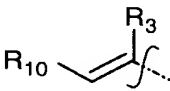
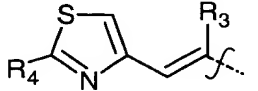
In the Office Action, the Examiner takes the position that the 1997 Nicolaou reference anticipates the method of claim 1 only when

1. The first compound has the formula wherein Z is thiazole radical when $R_1 - R_4$ are each methyl and R_6 is TBS;
2. The second compound is $R_{13}OOCCH_2CHOR_7CH(CH_3)_2COCH_2CH_3$ wherein R_{13} is H and R_7 is TBS;
3. The third compound has the formula wherein Z is the thiazole radical when $R_1 - R_4$ are each methyl, R_7 is TBS, and R_6 and R_8 are hydrogen or TBS; and
4. The fourth compound has the formula wherein A is the thiazole radical when $R_1 - R_4$ are each methyl and R_7 and R_8 are TBS or H.

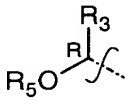
New claim 111 is essentially original claim 1 rewritten to define Z as the thiazole radical and to define the second compound as $HOOCH_2CHOR_7CH(CH_3)_2COCH_2CH_3$ wherein R_7 is selected from H and a protecting group. The Examiner will note, however, the addition of the provisos in new claim 111 that provides limits to the first, third, fourth compounds. Applicant believes that new claim 111 essentially carves out of the recitation the first, third, and fourth compounds that the Examiner indicated were anticipated by the 1997 Nicolaou reference. Accordingly, Applicant believes that claim 111 is in condition for allowance. Depending from claim 111 are claims 112-120, which essentially recite the subject matter of claims 2, 4-6, 9, 15-17, and 33, respectively, which Applicant also believes are in condition for allowance.

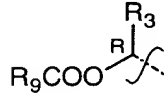
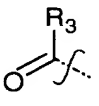
Amendment to Claim 69

The Examiner rejected claim 69 as being anticipated by both the 1997 and 1998 Nicolaou references. In general, the Examiner's rejections were limited to

those instances where W was defined as either  or .

Applicant notes for the Examiner's attention that claim 69 has been amended to

remove each of these moieties from the claim, so that W is selected from .

, and . Applicant notes further that amending the claim in this way resulted in striking the definitions for the variables R₄ and R₁₀ and the cancellation of claim 74.

The Examiner also rejected claim 69 under 35 U.S.C. § 112, second paragraph because the appearance of the variables R₆, R₁₁, and R₁₂ in the claim. With respect to R₆, the Examiner correctly noted that R₆ is defined in the claim but does not appear in the formula. Applicant has amended the claim to remove variable R₆ and its definition.

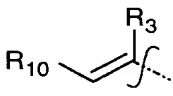
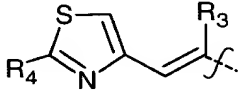
Applicant has also amended the definitions of the variables R₇ and R₈ to address the Section 112 rejection as it relates to the definitions of R₁₁ and R₁₂. More particularly, the variables R₇ and R₈ have been amended so as to be defined as follows:

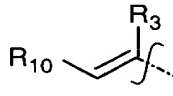
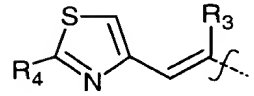
R₇ is selected from H, a protecting group and COR₁₁;

R₈ is selected from H, a protecting group and COR₁₂

In amending claim 69 in this way, Applicant believes it has also addressed the Section 112 rejection of claim 70. Based upon the foregoing amendments to claim 69, then, Applicant asserts that claim 69, and its remaining depending claims 70-72 are now in condition for allowance.

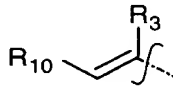
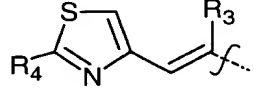
New Independent claim 121 and dependent claims 122-125

As mentioned in the previous section, the Examiner noted that claim 69 was anticipated by either the 1997 and 1998 Nicolaou references only when W was defined as either  or . Moreover, the Examiner also noted that when W was defined as either of these two moieties, the claim was anticipated when R₇ and R₈ are, simultaneously, either H or a protecting group.

New independent claim 121 defines W as either  or . Further, R₇ is defined as COR₁₁ while R₈ is defined as H, a protecting group or COR₁₂. As such, R₇ and R₈ cannot be H or a protecting group at the same time. Claims 122-125 essentially recite the subject matter of claims 70-72 and 70, respectively. Based upon the foregoing, it is believed that claims 121-125 are now in condition for allowance.

New Independent claim 126 and dependent claims 127-130

Based upon the reasoning as set forth in the previous section, new claim 126

also defines W as either  or . In this claim,

however, the Examiner will note that R₇ is defined as H, a protecting group or COR₁₁ while R₈ is COR₁₂. Here again, R₇ and R₈ cannot be H or a protecting group at the same time. Claims 127-130 essentially recite the subject matter of claims 70-72 and 70, respectively. Based upon the foregoing, it is believed that claims 126-130 are now in condition for allowance.

No additional claims fees are believed to be payable upon the Amendment. The maximum total claims in this amendment is 63 and 73 claims were previously paid for. Also, the total number of independent claim sin this amendment is 14, while the number of independent claims previously paid for is 15. However, the Commissioner is hereby authorized to charge any deficiency in the required fees, or to credit any overpayment, to deposit account number 13-1940.

Based on the foregoing, Applicant submits that the present application is in complete condition for allowance, and action to that end is courteously solicited. If any issues remain to be resolved prior to the granting of this application, the Examiner is requested to contact the undersigned attorney for the Applicant at the telephone number listed below.

Respectfully submitted,

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